Pharmacology and Therapeutics

COUNCIL ON PHARMACY AND CHEMISTRY OF THE A. M. A.

(Reported by W. A. Puckner, Secretary)

The January report of the Council on Pharmacy and Chemistry notices a number of new remedies admitted to New and Non-official Remedies, as well as some interesting data about other remedies.

Bacillus Acidophilus Milk-Lederle—Lederle Antitoxin Laboratories.

PROPAGANDA FOR REFORM

The Disappointments of Hexamethylenamin—Hexamethylenamin has joined the large and growing group of drugs of which much has been expected, but which have failed to justify the hopes of their champions. The use to which hexamethylenamin is still devoted with apparent scientific justification is in preventing the growth of microorganisms in the urinary tract and in destroying them when they are present in the urine in infectious diseases, such as typhoid fever. The drug is recommended as an antiseptic in cystitis, and as a prophylactic prior to operations on the urinary tract.

Its possible efficacy, however, depends on the elimination through the kidneys with a urine that remains distinctly acid in reaction; otherwise, no benefit is to be expected. Hexamethylenamin has no material antiseptic value as an antiseptic in the cerebrospinal fluid during spinal meningitis. It is not a uric acid solvent. Finally, the drug has been shown to have no diuretic potency. Furthermore, hexamethylenamin is said to be liable to produce renal irritation when the dosage is large or the use protracted. (Jour. A. M. A., January 6, 1923, p. 37.)

Horovitz Protein Substance No. 10—The composition of No. 10 protein substance for syphilis of the Horovitz Biochemic Laboratories is essentially secret. The claims made are unwarranted and may lead physicians to use the product unwisely. A. S. Horovitz, president of the Horovitz Biochemic Laboratories, was referred to in connection with the asserted cancer cure "autolysin" (The Horovitz-Beebe Treatment for Cancer, Jour. A. M. A., July 24, 1915, p. 336). Later, he was connected with the Wm. S. Merrell Co., and appears to have been responsible for this firm's line of "proteogens," which the Council on Pharmacy and Chemistry declared inadmissible to New and Non-official Remedies in 1919. The claims advanced for the products marketed by the Horovitz Biochemic Laboratories bear a striking resemblance to those advanced for the Merrell proteogens. As in the case of proteogens, the Horovitz laboratories have a list of "protein substances," each of which is claimed to be more or less specific against a given disease or condition. (Jour. A. M. A., January 6, 1923, p. 54.)

More Misbranded Nostrums—The following products have been the subject of prosecution by the Federal authorities charged with the enforcement of the Food and Drugs Act: C. J. C. regulator (C. J. Czarnecki), containing iron chlorid, a small amount of plant material, a trace of oil of tansy and alcohol. C. J. C. liniment (C. J. Czarnecki), containing camphor, menthol, chloral hydrate, ether, ammonia water, and alcohol. Allan's red wash and sandalwood emulsion compound (Allan-Pfeiffer Chemical Co.): Allan's red wash (Allan Pfeiffer Chemical Co.), containing zinc sulphate, boric acid, and phenol, eucalyptol, a trace of alkaloid and water and sandalwood emulsion compound (Allan-Pfeiffer Chemical Co.), containing santal oil, mineral oil, methyl salicylate, copaiba, a small amount of magnesium and calcium salts and water. Parrott mixture (Allan-Pfeiffer Chemical Co.), consisting of an emulsion of turpentine oil, methyl salicylate, camphor, copaiba, gum, and water. Parrott sexual pills (Allan-Pfeiffer Chemical Co.), containing strychnin and a compound of iron and phosphorus. Am-O-Lox ointment (Am-O-Lox Co.), consisting essentially of zinc oxid, sulphur, phenol, methyl salicylate and a small amount of dye in a base composed of petrolatum and paraffin. Am-O-Lox prescription (Am-O-Lox Co.), consisting essentially of glycerin, carbolic acid, salicylic acid, methyl salicylate, alcohol, water, and coloring matter. Vigeron (Sydney Ross Co.), sugar-coated pills containing compounds of iron, zinc, manganese, arsenic, phosphorus, and strychnin. (Jour. A. M. A., January 6, 1923, p. 53.)

Present Status of Insulin—The investigators of "Insulin," the new pancreatic extract proposed for the treatment of diabetes, have applied for a patent on the product in Canada, United States, and Great Britain. The patent for Canada and the United States has been tendered, when granted, to the University of Toronto. The University proposes to safeguard the product against commercial exploitation and to ensure the marketing of a standardized product. From the present indications it is hoped that the experimental period will be ended during the first half of 1923, so that the product will become available. Dr. McLeod believes that "insulin" will never entirely replace careful dietary regulations, but that it is of undoubted value in assisting the weakened power to metabolize carbohydrates.

It is to be hoped that the University of Toronto will be able to control the advertising claims and methods of marketing of the product. (Jour. A. M. A., January 6, 1923, p. 36.)

Antiberiberi Vitamin Concentrate — Metz — The Council on Pharmacy and Chemistry reports that the Metz Laboratories have requested the acceptance for New and Non-official Remedies of Antiberiberi Vitamin Concentrate—Metz. The firm supplied adequate information in regard to the process whereby the product is obtained, and has presented evidence to show that the potency of the product is controlled by adequate animal tests. The firm, however, presented no proof to indicate that the product is of value, therapeutically, in human beings, and hence it could not be admitted to New and Non-official Remedies. The firm wished to make available to students and investigators of nutrition a product which is claimed to be antineuritic (anti-beriberi) when fed to pigeons. It increases the food intake of rats fed on substance deficient in vitamin B and causes increased weight, but not to the same extent as does the vitamin B (according to McCollum's nomenclature). The Council deemed that from a scientific standpoint antiberiberi vitamin concentrate (Metz) is suitable for study, suitable for animal experiments and for controlled experiments on man, and hence authorized publication of a preliminary report.

Antiberiberi vitamin concentrate (Metz) is prepared from brewers' yeast.

The vitamin extract is standardized so that 0.065 gm. shall represent the anti-neuritic potency of 10 gm. of freshly pressed brewers' yeast. The product is marketed in the form of powder tablets, and solution (1 cc. containing the anti-neuritic potency of 10 gm. freshly pressed brewers' yeast). (Jour. A. M. A., December 13, 1922, p. 106.)

Culture-Lac Omitted from N. N. R. and Optolactin Not Accepted—Culture-Lac is described in New and Non-official Remedies, 1922, as a culture of bacillus bulgarious manufactured by the Geck Laboratories, New York. The Special Pharmacal Co., Inc., Buffalo, N. Y., advised the Council on Pharmacy and Chemistry that it now owned culture-lac. The product now marketed, however, is not the preparation described in New and Non-official Remedies as culture-lac, but is said to be a culture containing bacillus acidophilus and bacillus bulgaricus. The council directed that the culture-lac of the Geck Laboratories be omitted from New and Non-official Remedies because it is off the market. The council declared the culture-lac of the Special Pharmacal Co., Inc., to be inadmissible to New

and Non-official Remedies, (1) because there is no acceptable evidence for the administration of a mixture of B. bulgaricus and B. acidophilus, and (2) because the preparation was marketed with unwarranted therapeutic claims.

Optolactin is the name applied by Fairchild Bros. and Foster to a tablet said to contain mixed cultures of B. bulgaricus and B. acidophilus. The Council on Pharmacy and Chemistry declared optolactin inadmissible to New and Non-official Remedies, (1) because there is no acceptable evidence for the use of the mixture; (2) because its name is not descriptive of the composition; and (3) because the circular accompanying the trade package is likely to lead to the ill-advised use of optolactin by the public. (Jour. A. M. A., January 13, 1923, p. 127.)

Bacillus Acidophilus and Intestinal Putrefaction—While the administration of soured milk products is at times beneficial, the cause of this beneficial action is still undetermined. The belief that the Bulgarian bacillus can be permanently implanted in the intestinal tract and that this implantation is responsible for the effects is no longer tenable. Of late, attention has been called to the effects of the administration of milk cultures of bacillus acidophilus, which is stated to be a normal inhabitant of the human intestinal tract.

It is reported that this bacillus may be successfully implanted in the intestinal tract, provided a suitable pabulum is provided. It has been assumed that the acidity of putrefactive organisms would be almost entirely suppressed by a change of the flora produced by the administration of milk containing cultures of bacillus acidophilus and that with such implantation, the somewhat hypothetical toxic products charged with harm to the body might also be expected to be suppressed. If indican excretion, however, may be taken as an index of intestinal putrefaction, it now appears that implantation of bacillus acidophilus in the intestine does not lower the putrefactive process.

This suggests that favorable clinical effects produced by the administration of lactose cultures of bacillus acidophilus are not primarily dependent on decreased production of the antecedents of indican. (Jour. A. M. A., January 20, 1923, p. 186.)

Neisser-San-Kahn not Accepted for N. N. R.—Neisser-san-kahn is marketed by the York Laboratories as "a new genito-urinary product," with the claim that "in neisser-san-kahn the genito-urinary surgeon has at his command a new salt of marked value in urethral infections." The product is said to be a definite chemical body, zinc borosalicylate.

Neisser-san-kahn is claimed to be a new chemical compound. A preparation claimed to be zinc borosalicylate, however, was introduced about ten years ago (in Germany) as "mucosan," with claims similar to those now made for neisser-san-kahn. The Council on Pharmacy and Chemistry declared neisser-san-kahn inadmissible to New and Non-official Remedies, (1) because it is an unoriginal preparation under a proprietary non-descriptive name which the council cannot recognize because the York Laboratories are not the discoverers of the product to which the name is applied; (2) the therapeutic claims are unwarranted; and (3) the available evidence fails to show that the preparation claimed to be zinc borosalicylate has any advantage over established zinc salts. (Jour. A. M. A., January 20, 1923, p. 201.)

Quayle's "Bob-White Habit Sinkers"—Charles H. Quayle, M. D., of Madison, Ohio, "Medical Director" of the "Dr. Quayle's Sanitarium, a Retreat for Drug Addicts, Alcoholics, and Cigarette Inveterates" and "Specialist in Drug and Liquor Addiction," has been exploiting an alleged cure for chronic morphinism "and any other drug addiction." Formerly the treatment was "not for sale to any layman or person who wishes to treat himself" and physicians were importuned to use it. Today we find the Quayle's product advertised in the Police Gazette and similar literary productions. A "treatment" was purchased by a layman (for $25) and turned over to the A. M. A. Chemical Laboratory for analysis. The "treatment" consisted of four boxes of pills, labeled as follows:

"No. 1—Eliminative." (Contained three chocolate-coated pills and one capsule.)

"No. 2—Antidote." Contained 323 yellow-coated tablets.)

"No. 3—Nerve Tonic." (Contained thirty-seven red-coated pills.)

"Special Eliminative Bowel Tablets." (Contained twelve white-coated tablets.)

The analysis demonstrated that the "treatment" is essentially (1) active elimination by cathartics, (2) the administration of atropin during the stage of morphin withdrawal, and (3) the use of strychnin at the close of the "treatment." It is evident that this is no more a cure than could be devised by any physician who is familiar with modern medical literature. No physician will believe that a patient suffering from chronic morphinism can cure himself by any such method as that exploited by Quayle (Jour. A. M. A., January 27, 1923, p. 270.)

Child Hygiene and Private Physician—There is just as much need of health work among the children of the middle and well-to-do classes of society as among those of the poorer classes, says Borden S. Veeder, St. Louis (Journal A. M. A., December 30, 1922). The best results can be obtained only if there is direct and constant supervision of the child through infancy and childhood by one physician, who sees the child in sickness as well as in health, and who has an intimate and personal knowledge of its parents, its home life and daily environment, its play and companions. Without a full knowledge of all of these factors, the value of direct supervision is limited and handicapped. Furthermore, this supervision must reach the children of all classes and must not be limited to the economically dependent. The person in the ideal position to supervise the health and welfare of the infant and child is the private physician—the man in general practice. If this is true, the question naturally arises, Why, then, is this work not done by the private physicians? Why the necessity for the welfare clinic or conference? The answer is simple: Unfortunately, the vast majority of physicians in private practice are not qualified to supervise the development of the infant and child. Few recognize its importance; fewer still are interested, and, most important, even fewer have been trained to apply in general practice the methods which have met with such success in infant and child hygiene work. The fault or blame lies in the training and education of the private physician. In the past—and the same holds to a large extent at present—medical students have been trained to think in terms of disease rather than of health, and teaching, which has been almost entirely in hospitals or dispensaries, has been directed almost exclusively to the recognition and treatment of pathologic conditions. Such teaching as the student has received in hygiene or health has been of an abstract nature and not concretely applied to the individual. The lack of knowledge on the part of the private physician in regard to the hygiene and development of the infant and child is the fault of the physician's training, not of the physician. There must be a distinct change in the character of pediatric teaching, and this change is already taking place in better medical schools. For example, instead of spending hours over the classification and pathologic physiology of the nutritional diseases of infancy, the point that must be emphasized and driven home is the care and feeding of the normal infant: the prevention of disease must be stressed equally with the pathogenesis, diagnosis, and treatment. When this is done, physicians will be interested in giving ideal supervision to the infant and child.